IMMUNOLOGY

CONTENTS

Vol 76, No 1, May 1992

A. M. VERHAGEN, A. E. ANDREWS, M. R. BRANDON & A. D. NASH: Molecular cloning, expression and characterization of the ovine IL-2Rα chain 1

T. ABE, H. SUGAYA, K. YOSHIMURA & Y. NAWA: Induction of the expulsion of *Strongyloides ratti* and retention of *Nippostrongylus brasiliensis* in athymic nude mice by repetitive administration of recombinant interleukin-3 10

T. TOMADA, T. KURASHIGE & T. TANIGUCHI: Stimulatory effect of interleukin-1β on the interferon-gamma-dependent HLA-DR production 15

E. GIRARDIN, P. ROUX-LOMBARD, G. E. GRAU, P. SUTER, H. GALLATI, THE J5 STUDY GROUP & J.-M. DAYER: Imbalance between tumour necrosis factor-alpha and soluble TNF receptor concentrations in severe meningococcaemia 20

F. H. VALONE & N. M. RUIS: Stimulation of tumour necrosis factor release by cytotoxic analogues of platelet-activating factor 24

L. SCHANDENÉ, P. VANDENBUSSCHE, A. CRUSIAUX, M.-L. ALÈGRE, D. ABRAMOWICZ, E. DUPONT, J. CONTENT & M. GOLDMAN: Differential effects of pentoxifylline on the production of tumour necrosis factor-alpha (TNF-α) and interleukin-6 (IL-6) by monocytes and T cells 30

C. A. W. BATE, J. TAVERNE, H. J. BOOTSMA, R. C. ST H. MASON, N. SKALKO, G. GREGORIADIS & J. H. L. PLAYFAIR: Antibodies against phosphatidylinositol and inositol monophosphate specifically inhibit tumour necrosis factor induction by malaria exoantigens 35

Y. MATSUKI, T. YAMAMOTO & K. HARA: Detection of inflammatory cytokine messenger RNA (mRNA)-expressing cells in human inflamed gingiva by combined *in situ* hybridization and immunohistochemistry 42

R. G. COFFEY, L. L. WEAKLAND & V. A. ALBERTS: Paradoxical stimulation and inhibition by protein kinase C modulating agents of lipopolysaccharide evoked production of tumour necrosis factor in human monocytes 48

M. A. CASSATELLA, G. TRINCHIERI, N. F. HASSAN, L. HARTMAN, C. SORIO & G. BERTON: Induction of differentiation of the human myeloid cell line, ML3, by tumour necrosis factor and interferon-gamma is accompanied by enhanced expression of the CD4 protein and messenger RNA 55

T. THEPEN, K. HOEBEN, J. BREVÉ & G. KRAAL: Alveolar macrophages down-regulate local pulmonary immune responses against intratracheally administered T-cell-dependent, but not T-cell-independent antigens 60

L. FAULKNER, M. PATEL, P. M. BRICKELL & D. R. KATZ: Regulation of *c-fgr* messenger RNA levels in U937 cells treated with different modulating agents 65

T. KAWABE, K.-I. ISOBE, Y. HASEGAWA, I. NAKASHIMA & K. SHIMOKATA: Immunosuppressive activity induced by nitric oxide in culture supernatant of activated rat alveolar macrophages 72

E. G. SHEPHARD, R. ANDERSON, O. ROSEN & M. FRIDKIN: C-reactive protein (CRP) peptides inactivate enolase in human neutrophils leading to depletion of intracellular ATP and inhibition of superoxide generation 79

P. FRIEDL, B. KÖNIG & W. KÖNIG: Effects of mucoid and non-mucoid *Pseudomonas aeruginosa* isolates from cystic fibrosis patients on inflammatory mediator release from human polymorphonuclear granulocytes and rat mast cells 86

P. LALOR, C. BUCCI, M. FORNARO, M. C. RATTAZZI, H. NAKAUCHI, L. A. HERZENBERG & S. ALBERTI: Molecular cloning, reconstruction and expression of the gene encoding the alpha-chain of the bovine CD8—definition of the three peptide regions conserved across species 95

K. KRISTENSSON, C. A. K. BORREBAECK & R. CARLSSON: Human $CD4^+$ T cells expressing CD45RA acquire the lymphokine gene expression of $CD45RO^+$ T-helper cells after activation *in vitro* 103

A. HAYWARD, M. SHRIBER, R. KUBO & M. MCDUFFIE: T-cell repopulation following neonatal injection of non-obese diabetic (NOD) mice with anti-T-cell antibodies 110

A. M. DI MASSIMO, R. PLACIDO, S. BACH, A. M. ANASTASI, A. MASTINO, M. R. CAPOBIANCHI & V. COLIZZI: Cytotoxic activity of intestinal lamina propria lymphocytes on human immunodeficiency virus (HIV)-infected cells 117

J. P. HARVEY, C. H. KOO, J. M. BOGGS, R. N. YOUNG & E. J. GEOTZL: Mouse monoclonal antibody to a latent epitope of leucocyte receptors for leukotriene B_4 122

S. BRETT, J. M. ORRELL, J. SWANSON BECK & J. IVANYI: Influence of H-2 genes on growth of *Mycobacterium tuberculosis* in the lungs of chronically infected mice 129

P. BURROW & A. A. NASH: Susceptibility to Theiler's virus-induced demyelinating disease correlates with astrocyte class II induction and antigen presentation 133

M. G. WING, J. ZAJICEK, D. J. SEILLY, D. A. S. COMPSTON & P. J. LACHMANN: Oligodendrocytes lack glycolipid anchored proteins which protect them against complement lysis. Restoration of resistance to lysis by incorporation of CD59 140

K. M. THOMPSON, J. SUTHERLAND, G. BARDEN, M. D. MELAMED, M. G. WRIGHT, S. BAILEY & S. J. THORPE: Human monoclonal antibodies specific for blood group antigens demonstrate multispecific properties characteristic of natural autoantibodies 146

L. ZHANG, A. H. SEHON & S. S. MOHAPATRA: Induction of IgE antibodies in mice with recombinant grass pollen antigens 158

S. J. CHALLACOMBE, D. RAHMAN, H. JEFFERY, S. S. DAVIS & D. T. O'HAGAN: Enhanced secretory IgA and systemic IgG antibody responses after oral immunization with biodegradable microparticles containing antigen 164

U. HOLMSKOV, B. TEISNER, N. T. PEDERSEN, S. B. LAURSEN, H. B. RASMUSSEN & J. C. JENSENIUS: Tissue localization of conglutinin, a bovine C-type lectin 169

Brief communication

S. R. BURROWS, A. SUHRBIER, R. KHANNA & D. J. MOSS: Rapid visual assay of cytotoxic T-cell specificity utilizing synthetic peptide induced T-cell–T-cell killing 174

Book reviews 176

Vol 76, No 2, June 1992

A. FAITH, R. E. O'HEHIR, M. MALKOWSKY & J. R. LAMB: Analysis of the basis of resistance and susceptibility of $CD4^+$ T cells to human immunodeficiency virus (HIV)-gp120 induced anergy 177

A. REICH, O. ERLWEIN, S. NIEWIESK, V. TER MEULEN & U. G. LIEBERT: $CD4^+$ T cells control measles virus infection of the central nervous system 185

S. E. CHRISTMAS, R. BREW, I. CROSBY, I. E. GECIM & R. A. SELLS: Human T cells expressing Vβ8 do not predominantly recognize DR2 alloantigen 192

R. HOLMDAHL, T. J. GOLDSCHMIDT, S. KLEINAU, C. KVICK & R. JONSSON: Arthritis induced in rats with adjuvant oil is a genetically restricted $\alpha\beta$ T-cell dependent autoimmune disease 197

R. H. H. PIETERS, M. BOL, B. W. LAM, W. SEINEN & A. H. PENNINKS: The organotin-induced thymus atrophy, characterized by depletion of $CD4^+$ $CD8^+$ thymocytes, is preceded by a reduction of the immature $CD4^-$ $CD8^+$ $TcR\alpha\beta^{-/low}$ $CD2^{high}$ thymoblast subset 203

Y. MATSUMOTO, K. OHMORI & M. FUJIWARA: Immune regulation by brain cells in the central nervous system: microglia but not astrocytes present myelin basic protein to encephalitogenic T cells under *in vivo*-mimicking conditions 209

P. PANCHOLI, R. M. STEINMAN & N. BHARDWAJ: Dendritic cells efficiently immunoselect mycobacterial-reactive T cells in human blood, including clonable antigen-reactive precursors 217

A. DAHLMAN, S. AHLSTEDT, L. Å. HANSON, E. TELEMO, A. E. WOLD & U. I. DAHLGREN: Induction of IgE antibodies and T-cell reactivity to ovalbumin in rats colonized with *Escherichia coli* genetically manipulated to produce ovalbumin 225

K. A. LEADER, L. M. MACHT, F. STEERS, B. M. KUMPEL & C. J. ELSON: Antibody responses to the blood group antigen D in SCID mice reconstituted with human blood mononuclear cells 229

L. ECKMANN, E. MORZYCKA-WROBLEWSKA, J. R. SMITH & M. F. KAGNOFF: Cytokine-induced differentiation of IgA B cells: studies using an IgA expressing B-cell lymphoma 235

W. WANG & K. CHADEE: *Entamoeba histolytica* alters arachidonic acid metabolism in macrophages *in vitro* and *in vivo* 242

D. R. HAYNES, M. W. WHITEHOUSE & B. VERNON-ROBERTS: The prostaglandin E_1 analogue, Misoprostol, regulates inflammatory cytokines and immune functions *in vitro* like the natural prostaglandins E_1, E_2 and E_3 251

J. STAŇKOVÁ, N. GAGNON & M. ROLA-PLESZCZYNSKI: Leukotriene B_4 augments interleukin-2 receptor-beta (IL-2Rβ) expression and IL-2Rβ-mediated cytotoxic response in human peripheral blood lymphocytes 258

T. YOSHIKAWA, I. KURIMOTO & J. W. STREILEIN: Tumour necrosis factor-alpha mediates ultraviolet light B-enhanced expression of contact hypersensitivity 264

I. G. COLDITZ & D. L. WATSON: The effect of cytokines and chemotactic agonists on the migration of T lymphocytes into skin 272

R. S. SOLOFF, D. DEMPSEY, S. R. JENNINGS, R. M. WOLCOTT & R. CHERVENAK: Characterization of the progeny of precursor-T (pre-T) cells maintained *in vitro* by interleukin-3 (IL-3). Development of T-cell function *in vivo* 279

A. M. JACKSON, A. B. ALEXANDROV, S. PRESCOTT, K. JAMES & G. D. CHISHOLM: Role of adhesion molecules in lymphokine-activated killer cell killing of bladder cancer cells: further evidence for a third ligand for leucocyte function-associated antigen-1 286

E. SITNICKA & M. HANSSON: Natural killer (NK) cell activity in human long-term bone marrow cultures (LTBMC): effects of interleukin-2 (IL-2) and granulocyte–macrophage colony-stimulating factor (GM-CSF) on the progenitor cells 292

K. F. KNOBLOCK & P. C. CANNING: Modulation of *in vitro* porcine natural killer cell activity by recombinant interleukin-1α, interleukin-2 and interleukin-4 299

J. NAESSENS, M. SILEGHEM, N. MACHUGH, Y. H. PARK, W. C. DAVIS & P. TOYE: Selection of BoCD25 monoclonal antibodies by screening mouse L cells transfected with the bovine p55-interleukin-2 (IL-2) receptor gene 305

M. N. MCCALL, D. M. SHOTTON & A. N. BARCLAY: Expression of soluble isoforms of rat CD45. Analysis by electron microscopy and use in epitope mapping of anti-CD45R monoclonal antibodies 310

M. A. MARÍN, G. FONTÁN & M. LÓPEZ-TRASCASA: Requirements for the production of high-titre C3 nephritic factor (NEF) antibody *in vitro* 318

S.-C. YING, J. J. MARCHALONIS, A. T. GEWURZ, J. N. SIEGEL, H. JIANG, B. E. GEWURZ & H. GEWURZ: Reactivity of anti-human C-reactive protein (CRP) and serum amyloid P component (SAP) monoclonal antibodies with limulin and pentraxins of other species 324

M. ABDELHALEEM & E. SABBADINI: Identification of immunosuppressive fractions from the rat submandibular salivary gland 331

Brief communications

H. ZOLA & L. FLEGO: Expression of interleukin-6 receptor on blood lymphocytes without *in vitro* activation 338

S. DI CESARE, F. POCCIA, A. MASTNIO & V. COLIZZI: Surface expressed heat-shock proteins by stressed or human immunodeficiency virus (HIV)-infected lymphoid cells represent the target for antibody-dependent cellular cytotoxicity 341

Y. SHIMABUKURO, S. MURAKAMI & H. OKADA: Interferon-gamma-dependent immunosuppressive effects of human gingival fibroblasts 344

Vol 76, No 3, July 1992

Editorial review

A. TÄRNVIK, M. ERIKSSON, G. SANDSTRÖM & A. SJÖSTEDT: *Francisella tularensis*—a model for studies of the immune response to intracellular bacteria in man 349

A. ELSAGHIER, A. NOLAN, B. ALLEN & J. IVANYI: Distinctive Western blot antibody patterns induced by infection of mice with individual strains of the *Mycobacterium avium* complex 355

E. CILLARI, S. MILANO, M. DIELI, F. ARCOLEO, R. PEREGO, F. LEONI, G. GROMO, A. SEVERN & F. Y. LIEW: Thymopentin reduces the susceptibility of aged mice to cutaneous leishmaniasis by modulating CD4 T-cell subsets 362

T. P. LEARY, Y. GAO & G. A. SPLITTER: Constitutively expressing cell lines that secrete a truncated bovine herpes virus-1 glycoprotein (gpI) stimulate T-lymphocyte responsiveness 367

R. J. QUIGG: Inhibition of the alternative pathway of complement by glomerular chondroitin sulphate proteoglycan 373

M. YAMAKAWA & Y. IMAI: Complement activation in the follicular light zone of human lymphoid tissues 378

J. MARCINKIEWICZ, E. OLSZOWSKA, S. OLSZOWSKI & J. M. ZGLICZYNSKI: Enhancement of trinitrophenyl-specific humoral response to TNP proteins as the result of carrier chlorination 385

A. M. ROBERTS, R. VAN REE, S. M. CARDY, L. J. BEVAN & M. R. WALKER: Recombinant pollen allergens from *Dactylis glomerata*: preliminary evidence that human IgE cross-reactivity between *Dac g* II and *Lol p* I/II is increased following grass pollen immunotherapy 389

G. D. F. JACKSON, P. G. C. HANSEN & B. J. UNDERDOWN: Further evidence that hepatic sources confer biliary antibody in the rat 397

M. M. WHALEN, R. N. DOSHI & A. D. BANKHURST: Effects of pertussis toxin treatment on human natural killer cell function 402

F. MAMPASO, T. BRICIO, A. MARTIN & A. MOLINA: Production of interleukin-1-like cytokine by cultured rat glomerular macrophages 408

J. J. COSTA, J. M. KEFFER, J. P. GOFF & D. D. METCALFE: Aphidicolin-induced proliferative arrest of murine mast cells: morphological and biochemical changes are not accompanied by alterations in cytokine gene induction 413

A. KATIRA, M. KAMAL & J. GORDON: Occupancy of CD72 (the CD5 counterstructure) enhances interleukin-4-dependent CD23 expression in resting B lymphocytes 422

G. L. ASHERSON & F. DIELI: Immune deviation in the mouse: transfer of selective depression of the contact sensitivity and interleukin-2 response with retention of interferon-gamma production requires $CD8^+$ T cells 427

R. KIRCHEIS, J. MILLECK, V. G. KOROBKO, L. N. SHINGAROVA, D. BEHNKE & H. E. SCHMIDT: Biological activity of mutants of human tumour necrosis factor-alpha 433

M. A. MUÑOZ-FERNÁNDEZ, F. X. PIMENTEL-MUIÑOS, A. GONZÁLEZ, F. GAMBON, L. ALVAREZ-VALLINA & M. FRESNO: Differential effect of tumour necrosis factor on human thymocyte subpopulations 439

A. G. HADLEY, B. ZUPANSKA, B. M. KUMPEL & K. A. LEADER: The functional activity of FcγRII and FcγRIII on subsets of human lymphocytes 446

B. ROSE, A. GILLESPIE, D. WUNDERLICH, K. KELLEY, J. DZUIBA, D. SHEDD, K. CAHILL & B. ZERLER: Differential effects of a murine and chimeric mouse/human anti-interleukin-2 receptor antibody on human T-cell proliferation 452

P. J. WOOD & A. G. STANSFIELD: Inhibition of T-cell mediated cytotoxicity by Novobiocin suggests multiple pathways for both $CD4^+$ and $CD8^+$ cytotoxic T cells 460

A. ALTMAN, M. I. MALLY & N. ISAKOV: Phorbol ester synergizes with Ca^{2+} ionophore in activation of protein kinase C (PKC)α and PKCβ isoenzymes in human T cells and in induction of related cellular functions 465

P. SUTTON, R. W. STODDART & I. V. HUTCHINSON: Altered patterns of glycosylation on rat lymphocytes associated with activation 472

M. CLARE-SALZLER & Y. MULLEN: Marked dendritic cell–T cell cluster formation in the pancreatic lymph node of the non-obese diabetic mouse 478

P. PEZZATI, A. M. STANISZ, J. S. MARSHALL, J. BIENENSTOCK & R. H. STEAD: Expression of nerve growth factor receptor immunoreactivity on follicular dendritic cells from human mucosa associated lymphoid tissues 485

R. T. MEEHAN, L. S. NEALE, E. T. KRAUS, C. A. STUART, M. L. SMITH, N. M. CINTRON & C. F. SAMS: Alteration in human mononuclear leucocytes following space flight 491

K. KIMURA, Y. OGATA, K. SHIMADA, T. WAKABAYASHI, H. ONODA, T. KATAGIRI & A. MATSUZAWA: Nephritogenicity of the *lpr*^{cg} gene on the MRL background 498

Brief communications

V. SOUVANNAVONG, S. BROWN & A. ADAM: Interleukin-5 increases the expression of alkaline phosphatase activity in murine B lymphocytes 505

N. IMAZEKI, A. SENOO & Y. FUSE: Is the follicular dendritic cell a primarily stationary cell? 508

P. V. LEMLEY & D. C. WRIGHT: Mice are actively immunized after passive monoclonal antibody prophylaxis and ricin toxin challenge 511

Announcement 514

Vol 76, No 4, August 1992

Editorial review

D. F. NIXON, K. BROLIDEN, G. OGG & P. A. BROLIDEN: Cellular and humoral antigenic epitopes in HIV and SIV 515

R. M. E. PARKHOUSE, G. PREECE, R. SUTTON, J. L. CORDELL & D. Y. MASON: Relative expression of surface IgM, IgD and the Ig-associating α(mb-1) and β(B-29) polypeptide chains 535

I. A. ROONEY & B. P. MORGAN: Characterization of the membrane attack complex inhibitory protein CD59 antigen on human amniotic cells and in amniotic fluid 541

R. E. BAUGHN, V. WICHER & K. WICHER: Production of rheumatoid factor in adoptively immune guinea-pigs after challenge with *Treponema pallidum* 548

R. APPELBERG, I. M. ORME, M. I. PINTO DE SOUSA & M. T. SILVA: *In vitro* effects of interleukin-4 on interferon-γ-induced macrophage activation 553

P. H. HART, C. A. JONES & J. J. FINLEY-JONES: Interleukin-4 suppression of monocyte tumour necrosis factor-α production. Dependence on protein synthesis but not on cyclic AMP production 560

J. A. HAMILTON, G. A. WHITTY, A. K. M. ROYSTON, J. CEBON & J. E. LAYTON: Interleukin-4 suppresses granulocyte colony-stimulating factor and granulocyte–macrophage colony-stimulating factor levels in stimulated human monocytes 566

I. HARDARD'OTTIR, J. WHELAN & J. E. KINSELLA: Kinetics of tumour necrosis factor and prostaglandin production by murine resident peritoneal macrophages as affected by dietary n–3 polyunsaturated fatty acids 572

S. MAKINO, H. MASUTANI, N. MAEKAWA, I. KONISHI, S. FUJII, R. YAMAMOTO & J. YODOI: Adult T-cell leukaemia-derived factor/thioredoxin expression on the HTLV-I transformed T-cell lines: heterogeneous expression in ATL-2 cells 578

A. SJÖSTEDT, M. ERIKSSON, G. SANDSTRÖM & A. TÄRNVIK: Various membrane proteins of *Francisella tularensis* induce interferon-γ production in both $CD4^+$ and $CD8^+$ T cells of primed humans 584

J. H. ROBINSON, M. C. CASE & C. G. BROOKS: Palmitic acid conjugation of a protein antigen enhances major histocompatibility complex class II-restricted presentation to T cells 593

S. SAD, K. RAO, R. ARORA, G. P. TALWAR & R. RAGHUPATHY: Bypass of carrier-induced epitope-specific suppression using a T-helper epitope 599

C. A. O'DONNELL & J. W. COLEMAN: A T-cell response to the anti-arthritic drug penicillamine in the mouse: requirements for generation of the drug-derived antigen 604

H.-W. MITTRÜCKER & B. FLEISCHER: Functional localization of an exocytosis-triggering G-protein in human cytotoxic T lymphocytes 610

S. S. T. TO, T. MAGOULAS, E. NICHOLSON & L. SCHRIEBER: Identification of a human endothelial cell activation antigen that is co-expressed by germinal follicle centre B lymphocytes 616

J. M. WILKINSON, J. GALEA-LAURI, R. A. SELLARS & C. BONIFACE: Identification and tissue distribution of rabbit leucocyte antigens recognized by monoclonal antibodies 625

H. C. O'NEILL, K. NI & T. J. O'NEILL: Lymphoid precursor cell lines have capacity to migrate to multiple lymphoid sites 631

S. L. GOTTSHALL & P. J. HANSEN: Regulation of leucocyte subpopulations in the sheep endometrium by progesterone 636

F. M. RICHARDS, J. MILNER & S. METCALFE: Inhibition of the serine/threonine protein phosphatases PP1 and PP2A in lymphocytes: effect on mRNA levels for interleukin-2, IL-2Rα, krox-24, p53, hsc70 and cyclophilin 642

R. MACKENZIE, G. A. COLES, N. TOPLEY, W. S. POWELL & J. D. WILLIAMS: Down-regulation of cyclooxygenase product generation by human peritoneal macrophages 648

A. C. ISSEKUTZ & T. B. ISSEKUTZ: The contribution of LFA-1 (CD11a/CD18) and MAC-1 (CD11b/CD18) to the *in vivo* migration of polymorphonuclear leucocytes to inflammatory reactions in the rat 655

M. SARFATI, B. BETTLER, M. LETELLIER, S. FOURNIER, M. RUBIO-TRUJILLO, H. HOFSTETTER & G. DELESPESSE: Native and recombinant soluble CD23 fragments with IgE suppressive activity 662

Brief communication

F. SCALISE, R. GERLI, G. CASTELLUCCI, F. SPINOZZI, G. M. FABIETTI, S. CRUPI, L. SENSI, R. BRITTA, R. VACCARO & A. BERTOTTO: Lymphocytes bearing the $\gamma\delta$ T-cell receptor in acute toxoplasmosis 668

Author and subject indexes for Volume 76 671